

Press Release

JMI Professor receives prestigious DBT grant of Rs. 805 Lakh to investigate weight loss mechanisms in Indian Head and Neck Cancer Patients

New Delhi, March 19, 2026

Prof. Md. Imtaiyaz Hassan, a distinguished structural biologist and academic leader at Jamia Millia Islamia (JMI), has been awarded a prestigious grant of Rs. 805 Lakhs by the Department of Biotechnology (DBT), Government of India. This funding, under a special DBT call, supports a groundbreaking collaborative project to dissect the mechanisms of cancer cachexia in Indian head and neck cancer (HNC) patients, in partnership with the Indian Institute of Science and leading cancer research institutions.

Cancer cachexia is a devastating syndrome characterized by severe weight loss, muscle wasting, chronic inflammation, and diminished quality of life which affects nearly 70% of HNC patients. The project aims to identify novel biomarkers and therapeutic interventions through an integrated, multi-omics approach. Researchers will employ high-throughput transcriptomics, metabolomics, microbiome profiling, DNA repair pathway analyses, and neurobehavioral assessments to pinpoint molecular drivers and psychosocial factors. Parallel functional validation using cell lines, animal models, and patient-derived xenografts for early diagnosis and personalized, stage-specific therapies.

The project brings together leading institutions to conduct comprehensive, cutting-edge investigations, including, Indian Institute of Science, Bangalore, Dr. B. Borooah Cancer Institute, Guwahati, University of Mysore, HCG Cancer Hospital, Bengaluru and Institute of Bioinformatics and Applied Biotechnology, Bangalore.

Prof. Hassan has been granted this project due to his world-class expertise in cancer biology and drug discovery. A prolific scientist with over 600 publications in top journals, more than 25,500 citations, and an h-index of 75, he has led over 20 government-funded projects on cancer and neurodegenerative diseases. As one of the few Indian scientists elected Fellow of both the Royal Society of Chemistry and the Royal Society of Biology, Prof. Hassan drives interdisciplinary innovation at Jamia Millia Islamia, fostering national and global collaborations for biomedical excellence.

"This grant reflects DBT's trust in our team's ability to address a critical unmet need in Indian HNC patients," said Prof. Hassan. "By uncovering cachexia's hidden mechanisms, we aim to transform patient outcomes through precision medicine."

This landmark grant highlights Prof. Hassan's pivotal role in advancing biomedical research in India and underscores the DBT's commitment to addressing critical gaps in cancer-associated complications through collaborative, high-impact science. It positions JMI and its partners at the forefront of innovative solutions for one of the most challenging aspects of oncology care in the Indian context. The project promises to advance India's cancer research landscape, offering hope for millions battling HNC-associated cachexia.

Prof. Saima Saeed
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Prof. Md. Imtaiyaz Hassan